



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/578,567	05/25/2000	Marilee G. Berry	99PS014/KE	6188

7590 01/30/2006
Rockwell Collins Inc
Attention Kyle Eppele
400 Collins Rd NE
Cedar Rapids, IA 52498

EXAMINER

HOYE, MICHAEL W

ART UNIT PAPER NUMBER

2614

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/578,567	BERRY, MARILEE G.	
	Examiner	Art Unit	
	Michael W. Hoyer	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 9-11 of the remarks, filed on January 16, 2004, with respect to the rejection of claims 1-7 and 10-11 under 35 U.S.C. § 102(e) as being anticipated by Weinberger (USPN 6,499,027), and on page 12 of the remarks with respect to the rejection of claims 8-9 under 35 U.S.C. § 103(a) as being anticipated by Weinberger have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kondo et al (USPN 5,666,151), as described below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al (USPN 5,666,151), previously cited by the Examiner.

As to claim 1, note the Kondo et al reference which discloses a method of indicating program selections in a passenger entertainment system including a seat controller unit receiving programming signals over a plurality of radio frequency (RF) channels and generating display signals from the programming signals, wherein the program selections are made through a

Art Unit: 2614

passenger control unit. The claimed step of assigning a program channel to each of the program selections available to the passenger is met by the video signals a1, a2, etc., as shown in Figs. 1 and 2, which are similar or equivalent to television channels each having 6 MHz bandwidth (see col. 4, lines 5-44). The claimed allocating one of the RF channels to carry programming signals corresponding to more than one program channel is met by digitally compressing 4 to 6 channels (i.e. a1 to a4 or a1 to a6) according to MPEG standards, supplying the signals or channels to a time-division multiplexer 31, which provides a digital signal or channel b1 of 6 Mbps to the RF modulator 32, as shown in Fig. 2, for example, where the RF modulator provides an RF signal or channel c1 which includes the 4 or 6 channels of digital video a1 to a4, or a1 to a6 (see col. 4, lines 5-44 and Figs. 1-2 and 5, also see col. 4, line 61 – col. 6, line 67). The claimed displaying the program channel corresponding to a program selection carried on an RF channel, and displaying the program channel corresponding to another program selection in response to a change in the program selection using the passenger control unit is met by a passenger selecting a channel through the seat control unit (see 16A and 33A in Fig. 1) where a liquid crystal monitor 28A displays the video for the selected channel (see col. 5, line 26 – col. 6, line 30).

As to claim 2, the Kondo et al reference discloses the step of displaying the display signals of the programming signals corresponding to the program selection as described above in claim 1, as well as in col. 5, line 26 – col. 6, line 30.

As to claim 4, the Kondo et al reference discloses the claimed method wherein the allocated one of the RF channels carries a plurality of data streams, each carrying programming signals corresponding to a different one of said more than one program channel as met by the RF modulated signals or channels (i.e. c1 to c21), which have carrier frequencies of f1 to f21 for

Art Unit: 2614

example, where each RF channel carries a 4 or 6 data streams that correspond to a different program or video channel (see col. 4, line 5 – col. 5, line 42).

As to claim 5, the claimed retrieving configuration data that specifies the number of RF channels is met by the embodiment in col. 5, lines 20-25, where 20 RF channels are comprised of multiple digital video signals and 1 RF channel is an analog video carrier, in addition to, the number of RF channels for analog video carriers may be increased while decreasing the number of digital video signal carriers so the total number of RF video channels remains 21 (see col. 4, line 5 – col. 5, line 25, col. 6, lines 30-51 and Figs. 1-3 and 5). The claimed allocating a first plurality of RF channels to carry programming signals from a first device generating NTSC video streams based on the configuration data; and allocating a second plurality of RF channels to carry programming signals from a second device generating MPEG video streams based on the configuration data is met by the sections of the Kondo et al reference as described above, where the claimed first plurality of RF channels... is met by configuring the system for multiple analog video signal providers 11 which each have a bandwidth of 6 MHz that is equal to a typical TV channel and it is well known that a typical analog TV signal in the United States is in NTSC format, and the claimed second plurality of RF channels... is met by configuring the remainder of the system for multiple digital signal providers 10A, 10B, and so on, where the total number of signal providers is 21 and the digital signal providers, carry video signals compressed by MPEG standards (see col. 6, lines 30-51 and the additional sections and Figures cited above).

As to claim 6, the claimed each of the first plurality of RF channels carries a single NTSC video stream and each of the second plurality of RF channels carries multiple MPEG video streams is met by the Kondo et al reference as described above in claim 5.

As to claim 7, the claimed step of allocating one of the second plurality of RF channels to carry multiple MPEG video streams corresponding to one program channel is also met by the Kondo et al reference as described above in claim 5.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al in view of Weinberger (USPN 6,499,027), previously cited by the Examiner.

As to claim 3, the Kondo et al reference does not explicitly disclose the claimed program selection is changed using up/down channel selection buttons on the passenger control unit and wherein a program channel that is next in sequence to the program channel corresponding to a current program selection is displayed in response to an up channel selection and a program channel that is previous in sequence to the program channel corresponding to the current program selection is displayed in response to a down channel selection. However, although up/down channel selection buttons on the passenger control unit are not explicitly disclosed in the Kondo et al reference as described above, channel selection buttons are well known in the art

Art Unit: 2614

of aircraft or passenger entertainment systems. For example, the Weinberger reference teaches that a program selection is changed using up/down channel selection buttons on the passenger control unit as shown by the passenger control unit 121 and the channel up/down button 381 in Fig. 8 and as previously described above in claim 1, and the claimed displaying a program channel that is next in sequence to a current program selection in response to an up channel selection and displaying a program channel that is previous in sequence to a current program selection in response to a down channel selection is inherent to up/down channel selection buttons. Therefore, it would have been obvious to one of ordinary skill in the art to have combined the audio/video signal providing apparatus and methods of Kondo et al with the additional teachings of the Weinberger reference for the advantage of providing a passenger with an easy to use channel selection interface comprising up/down channel selection buttons.

6. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al.

As to claims 8 and 9, the Kondo et al reference does not explicitly disclose a method wherein said one program channel corresponds to a near video-on-demand channel. However, the Examiner takes Official Notice that it is notoriously well known in the art of video distribution systems to incorporate the use of video-on-demand (VOD) systems, or more specifically, near video-on-demand systems for the advantages of providing programming to users on time frame that is more convenient to the user and not just during a single scheduled time, in addition to, a near VOD system requires less equipment and storage capacity as a VOD system since a near VOD system only plays programs at, for example, 15 minute intervals, whereas, a VOD system must be able to transmit a program to various users as any given time

Art Unit: 2614

which requires much greater system capacity. Furthermore, near VOD systems are well known and used in the headend of video distribution systems. Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of a near VOD program channel for the advantages given above.

Moreover, pertaining to claim 9, it is also well known in the art to transmit multiple MPEG video streams over a RF channel at different start times for a near VOD program channel.

As to claims 10 and 11, the claimed method wherein said one program channel corresponds to a video-on-demand program channel is not explicitly disclosed by the Kondo et al reference. However, the Examiner takes Official Notice that it is notoriously well known in the art of video distribution systems to incorporate the use of video-on-demand (VOD) systems for the advantages as previously described above in claim 8 as related to VOD systems. Moreover, pertaining to claim 11, it is also well known in the art to transmit multiple MPEG video streams over a RF channel at different start times for a VOD program channel.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Adams (USPN 6,378,130) – Discloses a media server interconnect architecture.

Berry et al (USPN 6,598,227) – Discloses a vehicle entertainment system with MPEG compression and quadrature amplitude modulation that permits multiple executable programs to be carried on a single channel of the RF modulated signal.

Art Unit: 2614

Berry et al (USPN 5,929,895) – Discloses a low cost hybrid video distribution system for aircraft in-flight entertainment systems.

Rabowsky et al (USPN 5,289,272) – Discloses a combined data, audio and video distribution system in passenger aircraft.

Weinberger et al (USPN 6,813,777) – Discloses a passenger entertainment system with video-on-demand services.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoyer whose telephone number is **571-272-7346**.

The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at **571-272-7353**.

Any response to this action should be mailed to:

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

Mail Stop _____
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Art Unit: 2614

Effective January 14, 2005, except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

United States Patent and Trademark Office
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Some correspondence may be submitted electronically. See the Office's Internet Web site <http://www.uspto.gov> for additional information.


Or faxed to: 571-273-8300

Hand-delivered responses should be brought to the Customer Service Window at the address listed above.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **571-272-2600**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Michael W. Hoye
January 19, 2006


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600